

## RESONANT FREQUENCY USER PROXIMITY DETECTION

## ABSTRACT OF THE DISCLOSURE

An electronic device able to detect a user in close proximity. The device may be a wireless data input device, for example, a radio frequency computer mouse. The device has power management features that do not require complex hardware or software to implement. For example, an antenna that is normally used for radio transmission is monitored. The power management features of the electronic device are able to detect a change in an operating characteristic of the antenna that is indicative of a user in close proximity thereto. For example, when the user touches a computer mouse, the resonant frequency of a circuit comprising the antenna changes due to capacitive loading of the antenna. The power management features cause the electronic device to be operated in a sleep mode or a radio transmission mode, depending on whether the user is detected.